Name of Organization: City of Chicago

Type of Organization: Municipality

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Project Title: Chicago Toxics Reduction Initiative

Project Category: Pollution Prevention and Reduction - BNS

Rank by Organization (if applicable): 0

Total Funding Requested ($): 140,614 **Project Duration:** 2 Years

Abstract:

Mercury and PCBs are persistant environmental concerns in the Lake Michigan basin. According to the USEPA, older large cities, like Chicago, experience inordinantly high readings of these toxics, especially in the summer. Effectively educating the public about the impacts of improper handling and disposal, as well as changing associated behavior, is critical to a successful reduction initiative. The City of Chicago Department of Environment proposes a practical, implementation-oriented program to reduce the amount of mercury and PCBs in the Lake Michigan basin. Chicago's project, which will build upon and enhance the Cook County Clean Sweep program, is three tiered. It focuses on education, collection, and best management practices. The program will target specific private sector generators of mercury and PCBs, as well as municipal government. The program will also leverage and build upon Chicago's aggressive air pollution and toxic reduction project currently underway. Finally, the City proposes to partner in the project with the City of Toronto. This partnership will allow for effective information exchange as well as bring added exposure to the issue of mercury and PCB reduction.

Geographic Areas Affected by the Project

States:

- [x] Illinois
- [ ] Indiana
- [ ] Michigan
- [ ] Minnesota
- [ ] New York
- [ ] Pennsylvania
- [ ] Wisconsin
- [ ] Ohio

Lakes:

- [ ] Superior
- [ ] Huron
- [x] Michigan
- [ ] Erie
- [ ] Ontario
- [ ] All Lakes

Geographic Initiatives:

- [x] Greater Chicago
- [ ] NE Ohio
- [ ] NW Indiana
- [ ] SE Michigan
- [ ] Lake St. Clair

Primary Affected Area of Concern:

Other Affected Areas of Concern:

For Habitat Projects Only:

Primary Affected Biodiversity Investment Area:

Other Affected Biodiversity Investment Areas:

Problem Statement:

Mercury and PCB's remain significant contributors to environmental degradation. This is especially the case in larger, older cities, traditionally home to many sources of mercury and PCB's. Chicago, as the largest city on the Great Lakes with a long industrial history, is a prime candidate for increased levels of release and contamination. The City has long been home to many generators of mercury and PCBs, including coal-fired generating stations, asphalt companies, landfills, small incinerators, and countless older homes with mercury/PCB-containing thermostats, switches, and light fixtures. The remnants of this history are evident in Lake Michigan. According to the USEPA, the area of Lake Michigan off the coast of Chicago frequently tests very high for the presence of these toxics. This is particularly troubling because Lake Michigan is utilized by a large number of sportfisherman and is the source of drinking water for millions of citizens.

Past efforts have substantially reduced the mercury and PCBs present in our environment. The focus has been, logically, on the larger identifiable sources such as PCB transformers and coal-fired generating stations. The legacy of these large sources, as well as a myriad of smaller more dispersed sources, must still be addressed. However, the following obstacles must be overcome:

-Effectively targeting the numerous household and small business generators can be difficult for many reasons. The expense of traditional outreach techniques, such as mailers and advertising, can be prohibitive. Less expensive mechanisms, like websites, do not have extensive reach and may be lost among other information sources. Further, for this type of outreach to be effective, consumers must be aware of the mercury and PCB problem and seek out information on their own.
-In many cases, PCB and mercury waste may be legally and inexpensively disposed of with regular waste. Environmentally sound disposal carries an economic burden which households and small businesses may not be able to or willing to bear.
-Mercury containg products are still entering the market place. Therefore, simply addressing disposal does not resolve the long-term problem.
-Government institutions can be a significant source of mercury and PCB containing materials. However, many reduction efforts do not have in place the administrative framework necessary to address these sources.

Proposed Work Outcome:

The City of Chicago Department of Environment (DOE) proposes a multi-faceted mercury and PCB reduction initiative which will target sources in households, small businesses, and local government. The project will have three focus areas; education, collection, and implementation of best management practices. This initiative will be coupled with DOE's ongoing toxic reduction programs that reduce air pollution, encourage energy efficiency, and manage household hazardous

waste. The proposed project will enhance the current Cook County Clean Sweep program (of which Chicago is a participant) by targeting a comprehensive mercury and PCB reduction effort within the City. By its very nature, the City is in the best position to address many mercury and PCB related issues, because it is the provider of basic services, and therefore has a connection with citizens and small businesses. Additionally, it is, itself, essentially a business, making purchasing decisions and managing property. In addition to the aforementioned benefits, an initiative focusing on Chicago, the largest city on the Great Lakes, will help promote, region wide, the impacts of mercury and PCBs on our environment.

The Department of Environment (DOE) toxic reduction initiative will be integrated into existing pollution reduction programs currently underway in Chicago and the region. Over the past several years Chicago has developed a comprehensive program focused on reducing pollutants through clean air projects, brownfields remediation, energy efficiency, and household hazardous waste collection. Specifically, the City:

-has a contract for light bulb and ballast disposal which includes the proper management of mercury and PCB's from City-owned buildings.
-has an extensive energy efficiency program for municipal buildings and the private sector that reduces the emissions from the region's coal-fired power plants and includes proper disposal of ballasts and light bulbs.
-provides grants and technical assistance to industry to retrofit old industrial boilers.
-conducts semi-annual household hazardous waste collections.
-reduced to 39 (from over 100) the number of small municipal waste incinerators and will shortly adopt an ordinance to ban these remaining units, further reducing the deposition of pollutants into Lake Michigan.
-is working with the 269 municipal members of the Metropolitan Mayors Caucus (MMC) to reduce regional air emissions through local government programs. Currently, the MMC is building a network of alternative fuel stations, publishing a clean air best practices guidebook and coordinating a lawnmower buy-back program.
-is remediating several hundred acres of brownfields.

These programs approach air pollution in a holistic manner and assure that the reduction of toxics is integrated into all of our activities. The program proposed under this grant will build upon the above initiatives.

The education part of the City's program will build on the work done by the existing multi-agency Clean Sweep group. Specifically, the City's program will follow-up on Clean Sweep mailers and outreach to develop a fully implemented program for small businesses as well as households. This more one-on-one, personalized contact will allow for a more effective communication of the environmental and regulatory issues involved with mercury and PCB containing products. A primary target is the growing remodeling industry. DOE will develop a relationship with the Chicago Rehab Network and write a specification for "green" purchasing and proper disposal practices. Also during this stage of the project, DOE will produce a packet of information tailored to homeowners detailing proper disposal techniques and "green" household practices. This informational packet will be similar to the published information used in Indiana's Mercury Awareness Program (M.A.P.). Additionally, the City will expand its audience by integrating information about these issues into the City of Chicago and Department of Environment websites. This portion of the program addresses a general lack of information as well as the need for follow-up outreach to targeted generators.

The City will make immediate gains in terms of collection of mercury and PCB by including small businesses in Household Hazardous Waste collection days. By doing this, the City will be able to not only remove these toxics from our environment, but provide a forum for educating citizens about the environmental concerns of sending mercury and PCB to landfills. The City will also attempt to remove a common household source of mercury by participating in, and focusing the efforts of, the Thermostat Workgroup of the Binational Toxics Strategy Groups. By working with manufacturers of thermostats, construction and demolition companies, as well as the heating, ventilation and air conditioning industry, the City will increase the number of correctly disposed thermostats and promote environmentally sensitive purchasing in this regard.

Although the City has contracts for the proper disposal of mercury and PCB's from lighting upgrades, we will undertake an examination of municipal contracts to ensure that mercury and PCBs from other sources are handled properly. This includes an examination of these practices as they relate to public buildings, like Chicago Public Schools, Chicago Housing Authority, Chicago Transit Authority, and the Park District. In addition, DOE will, through the MMC, work with the region's other municipalities to help them adopt similar practices.

Finally, the City of Chicago proposes, through this program, to partner with the City of Toronto in a mercury and PCB

reduction effort. This will provide an excellent opportunity for the two cities to exchange information and learn from each's experience. Further, the partnership will give the reduction effort much larger scope. This international exposure will provide additional education and outreach on a large scale, thus benefitting the communication of this important issue. Preliminary conversations are already underway between the City of Chicago and Environment Canada.

An important part of this program will take place after the education, best practices, and collection. During the program, the City will monitor and track the collection of mercury and PCBs. This will facilitate the calculation of the total number of pounds of these toxics removed from the environment.

Project Milestones:	**Dates:**
Project Start	08/2000
Outreach to Businesses	09/2000
Begin Dialogue with Toronto	09/2000
Business Association Partnership	11/2000
Expand Targeted Thermostat Program	11/2000
Institute Review of Local Gov. Practices	11/2000
Implement Household Campaign	02/2001
Project End	07/2002

☒ Project Addresses Environmental Justice

If So, Description of How:

The Department of Environment's initiative addresses environmental justice in the broad sense that all areas of the city will benefit from the reductions. Further, many of the sources of mercury and PCBs are industrial in nature, and therefore frequently located in low-income sections of the City. Since these areas will be targeted for outreach and reduction they will experience greater benefit.

☒ Project Addresses Education/Outreach

If So, Description of How:

Education is a major component of the Department of Environment mercury and PCB reduction effort. Since the initiative will attempt to change people's behavior, it must educate and make them understand the importance of the issue. There are several targets for the education and outreach part of this proposal: citizens/homeowners, students, various industries (including waste haulers, transfer stations, HVAC, lighting and electrical supplies, construction and demolition), City departments and sister agencies, and other municipalities.

In most cases, proper disposal of mercury and PCB containing material occasionally carries higher costs than normal waste disposal. Additionally, the City will be promoting "green buildings" and energy efficiency as part of this program. These activities often carry additional up-front costs that are repaid in the long term. Therefore, the targets of this proposal's education and outreach will be impacted by being asked to re-examine their traditional thinking about purchasing and disposal of mercury and PCBs.

Project Budget:

	Federal Share Requested ($)	Applicant's Share ($)
Personnel:	80,016	7,607
Fringe:	28,902	2,948
Travel:	0	0
Equipment:	0	0
Supplies:	0	0
Contracts:	25,000	150,000
Construction:	0	0
Other:	0	0
Total Direct Costs:	133,918	160,555
Indirect Costs:	6,696	0
Total:	140,614	160,555
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

Chicago's air pollution initiatives have received a $70,000 grant from the Grand Victoria Foundation to support regional activities and a $50,000 grant from the MacArthur Foundation to draft a best practices book on clean air for local governments.

Description of Collaboration/Community Based Support:

Current support for mercury and PCB reduction efforts spans the spectrum of government and non-governmental agencies. In the Chicago region, there is currently a working group (of which the City of Chicago is a member) called Cook County Clean Sweep. This group is representative of the broad range of support for these issues, with members from government, associations, and private industry. In addition, DOE is currently collaborating with the region's other municipalities on clean air and toxics reduction through the Metropolitan Mayors Caucus. The initiative in the proposal will not only maintain the existing efforts but will bring in new members, such as other units of local government.